

food may be due to the lower availability of Isopteran and Coleopteran insects. The study of the stomach contents of *Ophiomorus tridactylus* shows that it is purely an insectivorous lizard.

Feeding trials on a wide variety of freshly killed insects and other edible materials, both animal and plant, were done with captive skinks and it was observed that Isopteran insects were preferred. No plant material was taken.

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14. FISH FAUNA OF UDAIPUR LAKES

INTRODUCTION

The State of Rajasthan has great potentialities for the growth of Inland Fisheries. There are a large number of rivers, lakes, tanks and seasonal ponds. However, very little is known of the fish fauna of Rajasthan. Earlier publications of Mathur (1952), Krishna & Menon (1958) and Datta Gupta *et al* (1961) are not comprehensive. Hence, faunal studies of the fish population of the State were undertaken. The present paper forms a part of this study and deals with the fish fauna of Udaipur city popularly known as city of lakes.

MATERIALS AND METHODS

Weekly collections of fish were made throughout the year in 1965-66 from short stretches of water at various selected centres in Pichhola, Swaroop Sagar and Fateh Sagar Lakes. Every catch was sorted and fish obtained were preserved in 5% formalin. Morphometric observations along with the weights of different fishes were taken. Sex and stage of maturity were also recorded. Gill nets, cast nets, and sometimes drag nets were used for collections.

PHYSICAL FEATURES

Udaipur city (25°N. 75°E.), situated at 1983 ft. above sea-level, is surrounded by minor hills of the Aravalli ranges. To its south-east runs the Shisharma River which is formed by an assemblage of various streamlets from the adjoining hills. This silt-laden seasonal

river flows into Lake Pichhola, which was constructed in the year 1382. It is connected with Amarkund, and Rang Sagar and extends into Swaroop Sagar Lake completed in the year 1916. The latter passes out its surplus water through a waste weir to the River Ahar or to Fateh Sagar Lake.

Fateh Sagar Lake receives its water from three sources, from the adjoining hills, from Swaroop Sagar and from the Madar Channel. The total catchment area of Fateh Sagar Lake is about 8 sq. miles, and its dam is 2600 ft. in length. On one side of the dam is a waste weir through which surplus water is passed out. The submerged area of this lake is approximately 639 acres. During rains surplus water of Fateh Sagar and Swaroop Sagar meet to drop into the River Ahar, which flows down and is dammed at Udai Sagar Lake about 8 miles from Udaipur.

The soil of these lakes is loamy and the average depth of water in these lakes is about 18 ft. during rains, the maximum being towards the dam up to 40 ft. during rains, and about 10 ft. during summer. The temperature of these lakes varies from 15°C. in December-January to 34°C. in May-June. Turbidity is highest during monsoon and lessens from September reaching its minimum in February and March. The plankton fauna at the margin is poor probably due to heavy growth of weeds. It is, however, rich in other regions of the lakes and is mainly composed of rotifers, copepods, *Cladocera*, shrimps, *Mysis*, *Oscillatoria*, *Anabaena*, *Microcystis* etc. Floating weeds are uncommon but submerged weeds like *Hydrilla verticillata*, *Vallisneria spirifolia*, *Potamogeton crispus* and *Chara brachypus* are present.

FISH FAUNA

A list of fishes with their local and scientific names have been presented in the Table. Besides these, information about the maximum size, habitat, seasonal availability and breeding habits of economically important species have been mentioned. The general classification of fishes adopted in the table is that of Berg (1940).

DISCUSSION

Out of thirty-five species of fishes collected during the present survey of the three lakes of Udaipur city, majority belong to the family Cyprinidae. The families Siluridae, Cobitidae and Channidae fall next in sequence, rest of the families are represented by one species each.

TABLE

S. No.	Species	Local Name	Maximum Size Observed	Remarks
CYPRINIDAE				
1.	<i>Labeo rohita</i> (Ham.)	Rohu	3 ft.	Frequently available. An excellent table fish, breeds during south-west Monsoon (July-August).
2.	<i>Labeo calbasu</i> (Ham.)	Kalaunt	3 ft.	Common major carp of the waters of Udaipur.
3.	<i>Labeo goniis</i> (Ham.)	Sarsi	2 ft. 4 in.	Most abundant in Swaroop Sagar and Pichhola Lakes as compared to Fateh Sagar.
4.	<i>Labeo boggti</i> (Sykes)	Dudhya	8 in.	Frequently available.
5.	<i>Labeo bata</i> (Ham.)	Bata	1 ft.	Occasionally netted.
6.	<i>Cirrhina mirigala</i> (Ham.)	Mrigal or Narain	3 ft.	Available throughout the year in fairly good numbers and is much esteemed as food.
7.	<i>Cirrhina reba</i> (Ham.)	Reba	1 ft.	Occasionally netted.
8.	<i>Tor khudree</i> (Sykes)	Mahseer	2 ft. 5 in.	Available in large numbers in Fateh Sagar than in Swaroop Sagar and Pichhola Lakes, important both as food fish and game fish, specimens from 2 lb. to 10 lb. are considered to taste better compared to fishes of larger weights which are coarse and oily.
9.	<i>Puntius sophero</i> (Ham.)	Puthi	3 in.	Available throughout the year.
10.	<i>Puntius sarana</i> (Ham.)	Puthi	11 in.	Available throughout the year.
11.	<i>Puntius ticto</i> (Ham.)	Puthi	3 in.	Available throughout the year.
12.	<i>Chaganius chaganio</i> (Ham.)	Puthi	4 in.	Uncommon.
13.	<i>Chela clupeioides</i> (Bloch)	Silver chal	6 in.	Available throughout the year in large numbers and forms a good table fish.
14.	<i>Chela bacaila</i> (Ham.)	Chal	7 in.	Available in large numbers, larvicidal in habits.
15.	<i>Danio devario</i> (Ham.)	Chaudlore	4 in.	Very rarely netted, larvicidal in habits.
16.	<i>Garra gotyla</i> (Gray)	Pathar chata	6 in.	Very rarely netted.
17.	<i>Amblypharyngodon mola</i> (Ham.)	Melwa	4 in.	Found in large numbers.
18.	<i>Barilius bendelisis</i> (Ham.)	Gaiwa	6 in.	Available throughout the year.
19.	<i>Barilius barna</i> (Ham.)	Gala	3 in.	Not very common.
20.	<i>Rasbora daniconius</i> (Ham.)	Zebra	6 in.	Commonly available throughout the year.
COBITIDAE				
21.	<i>Noemacheilus botia</i> (Ham.)	Bamna	2 in.	Very rarely netted.
22.	<i>Botia lohachata</i> Chaudhri	Bamna	6 in.	Rarely netted.
23.	<i>Lepidoccephalichthys guntea</i> (Ham.)	—	3 in.	Very rarely netted.

S. No.	Species	Local Name	Maximum Size Observed	Remarks
	SILURIDAE			
24.	<i>Wallago attu</i> (Bloch & Schneider)	Lanchi	5 ft.	Very common in these waters, bottom feeder, regarded as a very undesirable fish in tanks and ponds as it destroys smaller fishes.
25.	<i>Mystus seenghala</i> (Sykes)	Singhara	4 ft.	Next only to <i>Wallago attu</i> in its economic importance. Predatory fish, breeds in April and May, available throughout the year and is a good table fish.
26.	<i>Mystus cavasius</i> (Sykes)	Katava	9 in.	Available throughout the year.
27.	<i>Mystus bleekeri</i> (Ham.)	Katama	5 in.	Rarely netted.
28.	<i>Ompok bimaculatus</i> (Bloch)	Pabda	11 in.	Frequently available during south-west monsoon.
	SACCOBRANCHIDAE			
29.	<i>Heteropneustes fossilis</i> (Bloch)	Singhi	1 ft.	Available throughout the year, dreaded for its venomous pectoral spines.
	OPHIOCEPHALIDAE (Channidae)			
30.	<i>Channa marulius</i> (Ham.)	Saval	4 ft.	Occasionally netted from these waters.
31.	<i>Channa punctatus</i> (Bloch)	Girhi	8 in.	Frequently available.
	CENTROPOMIDAE (Ambassidae)			
32.	<i>Ambassis nana</i> (Ham.)	Sisa	3 in.	Available throughout the year.
	NOTOPTERIDAE			
33.	<i>Notopterus notopterus</i> (Pallas)	Chitala	1 ft. 6 in.	Found in large numbers throughout the year.
	BELONIDAE			
34.	<i>Xenentodon cancila</i> (Ham.)	Suyia	1 ft.	Commonly available.
	MASTACEMBELIDAE			
35.	<i>Mastacembelus armatus</i> (Lacépède)	Bam.	2 ft.	Available throughout the year, people generally do not prefer it because of its snake-like appearance.

Cyprinid fishes collected from these lakes consist of twenty species. The genus *Labeo* alone is represented by five species. It is interesting to note that in Swaroop Sagar and Pichhola, the population of *Labeo gonius* is more in comparison to that found in Fateh Sagar where *Labeo rohita* forms the most important fishery; *Tor khudree* and *Cirrhina mrigala* are also present in appreciable quantity in the latter. *Catla* has so far not been observed from any of these lakes. However, it has been frequently collected from Udai Sagar and Jaisamand Lakes which are at a distance of eight and thirty-three miles respectively from Udaipur city.

Family Siluridae is represented by five species of which two are economically important.

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